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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of: **Matthias ERNST et al.**

Art Unit: **2131**

Application Number: **10/539,506**

Examiner: **Trang T. Doan**

Filed: **January 10, 2006**

Confirmation No.: **4654**

For: **AUTOMATIC, CONNECTION-BASED TERMINAL OR USER  
AUTHENTICATION IN COMMUNICATION NETWORKS**

Attorney Docket Number: **052703**

Customer Number: **38834**

**SUBMISSION OF REPLY BRIEF**

Mail Stop: **Appeal Brief – Patents**  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

September 22, 2008

Sir:

In response to the Examiner's Answer dated July 22, 2008, a Reply Brief is submitted with this paper. This paper is being timely filed.

If any fees are due in connection with this submission, please charge our Deposit Account No. 50-2866.

Respectfully submitted,

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WMS/jw



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS**  
**AND INTERFERENCES**

**REPLY BRIEF FOR THE APPELLANTS**

Ex parte Matthias ERNST et al. (Appellants)

**AUTOMATIC, CONNECTION-BASED TERMINAL OR USER AUTHENTICATION IN**  
**COMMUNICATION NETWORKS**

Application Number: **10/539,506**

Filed: **January 10, 2006**

Appeal No.: **Not Yet Assigned**

Group Art Unit: **2131**

Examiner: **Trang T. Doan**

Submitted by: **William M. Schertler**  
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Date: September 22, 2008



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re the Application of: **Matthias ERNST et al.**

Art Unit: **2131**

Application Number: **10/539,506**

Examiner: **Trang T. Doan**

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**REPLY BRIEF**

Mail Stop: **Appeal Brief -Patents**  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

September 22, 2008

Sir:

In response to the Examiner's Answer mailed July 22, 2008, the following is Appellant's  
Reply Brief.

**(I) STATUS OF CLAIMS**

Pending claims 1-23 stand rejected. No claims have been allowed, objected to,  
withdrawn or cancelled. The claims on appeal are claims 1-23.

**(II) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Appellants appeal the final rejection of claims 1-23 under 35 U.S.C. §102(e) as being  
anticipated by U.S. Patent Publication No. 2003/0169714 to **Nakajima** (hereinafter  
"Nakajima").

### **ARGUMENTS**

**Nakajima** does disclose or suggest the claimed “a provider of the protected area requesting the authentication unit to determine the unique connection identifier of the second network using the unique identifier of the first network when the terminal would like access to the protected area,” as recited in claim 1

In the Appeal Brief filed on May 7, 2008, with respect to independent claim 1, first, it was argued that **Nakajima** does not disclose or suggest the claimed “a provider of the protected area requesting the authentication unit to determine the unique connection identifier of the second network using the unique identifier of the first network when the terminal would like access to the protected area.” See, e.g., page 6, lines 5-8 of the Appeal Brief.

Initially, it is noted that, in the various Office Actions issued, the Examiner has, at times, considered network identification code of the mobile terminal 105 in **Nakajima** to correspond to the claimed “unique identifier of the first network,” and, at other times, has considered the an IP address of the service terminal 101 in **Nakajima** to correspond to the claimed “unique identifier of the first network.” Both of these interpretations are addressed below. It is also noted that the Examiner has consistently considered the telephone number of the mobile terminal 105 to correspond to the claimed “unique connection identifier of the second network.”

More specifically, in the Appeal Brief, it was emphasized that the authentication unit 210 of **Nakajima** does not determine the telephone number of the mobile terminal 105 (i.e., does not disclose the claimed “determine the unique connection identifier of the second network”) using the network identification code of the mobile terminal 105 (i.e., does not disclose the claimed

“using the unique identifier of the first network”). That is, it was emphasized that the telephone number of the mobile terminal 105 is already known prior to authentication and is part of a service request sent to the authentication unit 210. In particular, **Nakajima** requests that the authentication unit 210 compare the (already determined) telephone number and network identification code of the mobile terminal 105 provided in a service request with telephone numbers and network identification codes stored in a subscriber database to authenticate the mobile terminal 105. Therefore, the telephone number of the mobile terminal 105 (considered by the Examiner to correspond to the “unique connection identifier of the second network”) is not determined using the network identification code (considered by the Examiner to correspond to “the unique identifier of the first network”).

Further, in the Appeal Brief, it was emphasized that the IP address of the service terminal 101 (also considered by the Examiner to correspond to the “unique identifier of the first network”), which is included in the service request, is *not used* in any way to *determine* the telephone number of the mobile terminal 105 (considered by the Examiner to correspond to “the unique connection identifier of the second network”). Instead, the IP address of the service terminal is simply part of the information contained in the service request, and specifies a service delivery point so that the service terminal 101 can be connected to the Internet upon authentication of the telephone number. That is, the IP address of the service terminal, which is part of the service request, is extracted from the service request in response to authentication of the telephone number and is sent to the service gateway 102 so that the service gateway 102

knows a service delivery point. If the telephone number is not authenticated, then the IP address does nothing (i.e., is not sent to the service gateway).

Examiner's Response in Examiner's Answer

The Examiner responds to the arguments summarized above with, what is believed to be, conclusory statements that are non-responsive to the arguments presented in the Appeal Brief. In particular, the Examiner does not address any of the detailed arguments summarized above explaining why the authentication unit 210 of **Nakajima** does not use the IP address of the service terminal 101 or the network identification code of the mobile terminal 105 to determine the telephone number of the mobile terminal 105.

More specifically, in the paragraph bridging pages 9 and 10 of the Examiner's Answer, which purports to address the arguments summarized above regarding the feature "a provider of the protected area requesting...", the Examiner *concludes* that because the service request, which is sent to the authentication unit 210, includes the telephone number of the mobile terminal 105 *and the IP address* of the service terminal, the authentication unit 210 therefore determines the telephone number using the IP address (see, e.g., page 10, lines 5-8 of the Examiner's Answer). The Examiner's Answer provides no further explanation.

As discussed above, the Examiner has addressed none of the arguments that analyze the disclosure of the **Nakajima** reference and explain how the Examiner has mischaracterized the teachings of the reference. As discussed above, there is simply no disclosure of the authentication unit 210 determining the telephone number using an IP address. The

authentication unit 210 does not use the IP address in the service request to determine the telephone number of the mobile unit 105. The telephone number of the mobile unit 105, which is part of the service request, is already known.

As further evidence of the Examiner's failure to fully consider all the arguments set forth in the Appeal Brief, on page 10, Item b. of the Examiner's Answer, the Examiner completely fails to consider that the argument that **Nakajima** does not use "an IP address to determine the telephone number of the mobile terminal" by asserting that this feature is "not recited in the rejected claims."

However, the above argument, which was summarily dismissed by the Examiner as not being recited in the claims, is not "arguing features not recited in the claims." More specifically, the above argument was submitted, firstly, to explain how the Examiner is mischaracterizing the teachings of **Nakajima** (the Examiner alleged that **Nakajima** does in fact teach the feature of using an IP address to determine the telephone number of the mobile terminal), and, secondly, to explain that, if the **Nakajima** reference is properly characterized, the reference does not disclose or suggest the claimed invention (i.e., is unlike the claimed invention).

Finally, on page 11, Item c. of the Office Action, the Examiner again *concludes* that "the authentication unit determines the telephone number of the mobile terminal using the IP address embedded in the service request....," without addressing the above arguments that are crucial to the determination of patentability. As discussed above, the Examiner's response is a conclusory statement that is not supported by the **Nakajima** reference. Further, as noted above, the

Examiner has failed to address arguments pointing out that this interpretation of **Nakajima** is incorrect.

**Nakajima** does not disclose or suggest the claimed “storage of a combination of at least the unique connection identifier of the second network by means of which the connection was made, and the unique identifier of the first network in an authentication unit,” as recited in claim 1

First, the Examiner’s interpretation of the **Nakajima** reference with respect to this argument is confusing. The Examiner states “Examiner notes that the telephone network recited in Nakajima reference is the first network and the Internet recited in the Nakajima reference is the second network” (see page 12, last 3 lines of examiner’s Answer). However, this interpretation contradicts the statement on page 9, lines 13-15 of the Examiner’s Answer “an IP address (i.e., unique identifier of the first network) ...and a telephone number (i.e., unique connection identifier of the second network) of the mobile terminal”.

Second, in the Appeal Brief, it was argued that **Nakajima** stores the network identification code and the telephone number of the mobile terminal 105 in a subscriber database 210D. The Examiner has considered the telephone number of the mobile terminal 105 to correspond to the “unique connection identifier of the second network” and the network identification code to correspond to the “unique identifier of the first network.” However, it was pointed out in the appeal brief that **Nakajima** discloses that the network identification code is a serial number and is not a unique identifier of a network. Therefore, combination of data stored



in the subscriber database 210D does not include a “unique identifier of the first network, as claimed.

The Examiner does not appear to address this argument.

The **Nakajima** reference does not disclose or suggest “storage of a combination of the unique identifiers in an authentication unit,” as recited in claim 16

In the Appeal Brief, it was argued that the “unique identifiers” recited in claim 16, the combination of which is stored in the authentication unit, are provided by respective networks. (i.e., the claimed step of “provision of at least one unique identifier respectively from at least two different networks while a connection to both networks exists, whereby the connection to one of the networks happens by means of the other network”). Thus, it is clear that the claimed stored “combination of unique identifiers” comes from different networks and is provided “while a connection to both networks exists.”

Unlike the claimed invention, the whole purpose of the **Nakajima** reference is to establish a connection between the Internet and the mobile terminal 105 using the telephone number of the mobile terminal 105 and the network identification code of the mobile terminal 105 as authenticating information. The network identification code (serial number) and the telephone number of the mobile terminal 105 are pre-stored in a subscriber database 210D of authentication unit 210 (see paragraph [0038]). However, the authentication information stored in the subscriber database 210D is not “[provided] while a connection to both networks exists.” In fact, any information provided to the authentication unit 210 of **Nakajima** is provided *before*

*a connection to the Internet is established* because the authentication must take place prior to the connection to the Internet.

The above arguments have not been addressed by the Examiner.

The **Nakajima** reference does not disclose or suggest “deletion of data from the authentication unit as soon as a connection with at least one of the two networks has ended,” as recited in claim 16

In the Appeal Brief, it was argued that the **Nakajima** reference is silent with respect to deleting data from the subscriber database 210D of the authentication unit 210. Further, it was argued that **Nakajima** is silent with respect to termination of a connection with a network (i.e., “as soon as a connection with at least one of the two networks has ended”) being a condition upon which data is deleted from the authentication unit 210.

In the Examiner’s Answer, the Examiner responds to these arguments by asserting that **Nakajima** implies that data of a session is deleted when the session between the service terminal and the Internet is ended, citing paragraph [0044] of **Nakajima**. See page 13, Item f. of the Examiner’s Answer. However, paragraph [0044] is completely unrelated to deleting data from the authentication unit 210 and does not imply anything regarding when “data of a session” is deleted. Paragraph [0044] simply summarizes the general idea of the **Nakajima** reference, that is, a mobile terminal accessing a communication network via a service terminal.

Contrary to the Examiner’s assertions, **Nakajima** is silent with respect to when data is deleted from the authentication unit 210, and does not disclose or suggest “deletion of data from

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Art Unit: 2131

Reply Brief  
Attorney Docket No.: 052703

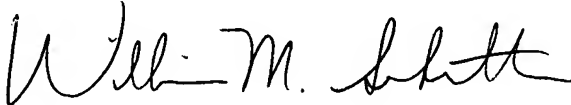
the authentication unit as soon as a connection with at least one of the two networks has ended.”

For at least the above reasons, Appellant requests that the Honorable Board reverse the Examiner’s rejections.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

**WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP**

A handwritten signature in black ink, appearing to read "William M. Schertler". The signature is fluid and cursive, with the first name "William" and middle initial "M." clearly visible, followed by the last name "Schertler".

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